SEQUENCE LISTING

<110> Vlaams Interuniversitair Instituut voor Biotechnol

<120> Novel internal ribosome entry site, vector containing same a
nd the uses thereof

<130> 2676-4976US

<150> 99200216.2
<151> 1999-01-26

<160> 51

<170> PatentIn version 3.1

<210> 1
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1
gacatcagcg acagcgagag gaagaccagc tcggccgagt cctcgtcagc agaatcaggc   60

tcaggttctg aggaagaaga ggaggaggag gaagaggagg aggaggaagg gagcaccagt   120

gaagaatcag aggaggaaga ggaagaggag gaggaggaga ccggcagcaa ctctgaggag   180

gcatcagagc agtctgccga agaagtaagt gaggaagaaa tg   222

<210> 2
<211> 222
<212> RNA
<213> Homo sapiens

<400> 2
gacaucagcg acagcgagag gaagaccagc ucggccgagu ccucgucagc agaaucaggc   60

ucagguucug aggaagaaga ggaggaggag gaagaggagg aggaggaagg gagcaccagu   120

gaagaaucag aggaggaaga ggaagaggag gaggaggaga ccggcagcaa cucugaggag

180

gcaucagagc agucugccga agaaguaagu gaggaagaaa ug
    222

<210> 3
<211> 2471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (906)..(1128)
<223> The IRES-activity containing sequence

<220>
<221> misc_feature
<222> (1)..(2471)
<223> PITSLRE protein kinase (p110pitslre) (isoform alfa2-2)

<400> 3
atacaggaag tgacgatact tttggcgcgc gcggttgctg tttcttctct ggctccggga
    60

ccggcggcgg cggcggcggc acgggcggcg gcgtagggtg ttttaactca aatgggtgat
    120

gaaaaggact cttggaaagt gaaaacttta gatgaaattc ttcaggaaaa gaaacgaagg
    180

aaggaacaag aggagaaagc agagataaaa cgcttaaaaa attctgatga ccgggattcc
    240

aagcgggatt cccttgagga gggggagctg agagatcact gcatggagat cacaataagg
    300

aactcccccgt atagaagaga agactctatg gaagacagag gagaagaaga tgattctttg
    360

gccatcaaac cacccccagca aatgtctcgg aaagaaaaag ttcatcacag aaaagatgaa
    420

aagagaaaag agaaaaagca tgctagagtg aagaagaaag aaagagagca cgaacgtcgg
    480

aaacgacatc gagaagaaca ggataaagct cgccgggaat gggaaagaca gaagagaagg
540

gaaatggcaa gggagcattc caggagagaa aggggggaatg atggcgtgtg cctcttcagg
600

gaccgcttgg agcagttaga aaggaagcgg gagcgggagc gcaagatgcg ggagcagcag
660

aaggagcagc gggagcagaa ggagcgcgag cggcgggcgg aggagcggcg caaggagcgg
720

gaggcccgca gggaagtgtc tgcacatcac cgaacgatga gagaggacta cagcgacaaa
780

gtgaaagcca gccactggag tcgcagcccg cctcggccgc cgcgggagcg gttcgagttg
840

ggagacggcc ggaagccagt aaaagaagag aaaatggaag aaagggacct gctgtccgac
900

ttacaggaca tcagcgacag cgagaggaag accagctcgg ccgagtcctc gtcagcagaa
960

tcaggctcag gttctgagga agaagaggag gaggaggaag aggaggagga ggaagggagc
1020

accagtgaag aatcagagga ggaagaggaa gaggaggagg aggagaccgg cagcaactct
1080

gaggaggcat cagagcagtc tgccgaagaa gtaagtgagg aagaaatgag tgaagatgaa
1140

gaacgagaaa atgaaaacca cctcttggtt gttccagagt cacggttcga ccgagattcc
1200

ggggagagtg aagaagcaga ggaagaagtg ggtgagggaa cgccgcagag cagcgccctg
1260

acagagggcg actatgtgcc cgactcccct gccctgtcgc ccatcgagct caagcaggag
1320

ctgcccaagt acctgccggc cctgcagggc tgccggagcg tcgaggagtt ccagtgcctg
1380

aacaggatcg aggagggcac ctatggagtg gtctacagag caaaagacaa gaaaacagat
1440

gaaattgtgg ctctaaagcg gctgaagatg gagaaggaga aggagggctt cccgatcacg
1500

tcgctgaggg agatcaacac catcctcaag gcccagcatc ccaacatcgt caccgttaga
1560

gagattgtgg tgggcagcaa catggacaag atctacatcg tgatgaacta tgtggagcac
1620

gacctcaaga gcctgatgga gaccatgaaa cagcccttcc tgccagggga ggtgaagacc
1680

ctgatgatcc agctgctgcg tggggtgaaa cacctgcacg acaactggat cctgcaccgt
1740

gacctcaaga cgtccaacct gctgctgagc cacgccggca tcctcaaggt gggtgacttc
1800

gggctggcgc gggagtacgg atcccctctg aaggcctaca ccccggtcgt ggtgaccctg
1860

tggtaccgcg ccccagagct gctgcttggt gccaaggaat actccacggc cgtggacatg
1920

tggtcagtgg gttgcatctt cggggagctg ctgactcaga agcctctgtt ccccgggaag
1980

tcagaaatcg atcagatcaa caaggtgttc aaggatctgg ggacccctag tgagaaaatc
2040

tggcccggct acagcgagct cccagcagtc aagaagatga ccttcagcag acacccctac
2100

aacaacctcc gcaagcgctt cggggctctg ctctcagacc agggcttcga cctcatgaac
2160

aagttcctga cctacttccc cgggaggagg atcagcgctg aggacggcct caagcatgag
2220

tatttccgcg agacccccct ccccatcgac ccctccatgt tccccacgtg gcccgccaag
2280

agcgagcagc agcgtgtgaa gcggggcacc agcccgaggc ccctgagggg aggcctgggc
2340

tacagccagc tgggtgacga cgacctgaag gagacgggct tccaccttac caccacgaac
2400

caggggggcct ctgccgcggg ccccggcttc agcctcaagt tctgaaggtc agagtggacc
2460

ccgtcatggg g
2471

<210>   4
<211>   30
<212>   DNA
<213>   Homo sapiens

<400>   4
gacatcagcg acagcgagag gaagaccagc
    30

<210>   5
<211>   468
<212>   DNA
<213>   Homo sapiens

<400>   5
cacgaacgtc ggaaacgaca tcgagaagaa caggataaag ctcgccggga atgggaaaga
    60

cagaagagaa gggaaatggc aagggagcat tccaggagag aaaggggaa tgatggcgtg
    120

tgcctcttca gggaccgctt ggagcagtta gaaaggaagc gggagcggga gcgcaagatg
    180

cgggagcagc agaaggagca gcgggagcag aaggagcgcg agcggcgggc ggaggagcgg
    240

cgcaaggagc gggaggcccg cagggaagtg tctgcacatc accgaacgat gagagaggac
    300

tacagcgaca aagtgaaagc cagccactgg agtcgcagcc cgcctcggcc gccgcgggag
    360

cggttcgagt tgggagacgg ccggaagcca gtaaaagaag agaaaatgga agaaagggac
    420

ctgctgtccg acttacagga catcagcgac agcgagagga agaccagc
    468

```
<210>   6
<211>   660
<212>   DNA
<213>   Homo sapiens

<400>   6
cacgaacgtc ggaaacgaca tcgagaagaa caggataaag ctcgccggga atgggaaaga
    60

cagaagagaa gggaaatggc aagggagcat tccaggagag aaaggggga tgatggcgtg
    120

tgcctcttca gggaccgctt ggagcagtta gaaaggaagc gggagcggga gcgcaagatg
    180

cgggagcagc agaaggagca gcgggagcag aaggagcgcg agcggcgggc ggaggagcgg
    240

cgcaaggagc gggaggcccg cagggaagtg tctgcacatc accgaacgat gagagaggac
    300

tacagcgaca aagtgaaagc cagccactgg agtcgcagcc cgcctcggcc gccgcgggag
    360

cggttcgagt tgggagacgg ccggaagcca gtaaaagaag agaaaatgga agaaagggac
    420

ctgctgtccg acttacagga catcagcgac agcgagagga agaccagctc ggccgagtcc
    480

tcgtcagcag aatcaggctc aggttctgag gaagaagagg aggaggagga agaggaggag
    540

gaggaaggga gcaccagtga agaatcagag gaggaagagg aagaggagga ggaggagacc
    600

ggcagcaact ctgaggaggc atcagagcag tctgccgaag aagtaagtga ggaagaaatg
    660


<210>   7
<211>   38
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   5' primer
```

<400> 7
tgctctagag gaattcgaag tgacgatact tttggcgc
   38

<210> 8
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> 3' primer

<400> 8
tgctctagac caagcttcac gtccatcaag ccgacctcag aa
   42

<210> 9
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> in frame NotI

<400> 9
agcctcaagt tcgcggccgc agagtggacc
   30

<210> 10
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 10
gaggaagaag cgagtgaaga t
   21

<210> 11
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 11
gacagcgaga aagaccagct cg
    22

<210> 12
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> 5'-end primer

<400> 12
ctagtctaga aaagtgaaaa ctttagatga aattc
    35

<210> 13
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> 3'-end primer

<400> 13
tgcatgccat ggatgtcgtt tccgacgttc gtgc
    34

<210> 14
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> 3'-end primer

<400> 14
tgcatgccat ggtcctctct catcgttcgg tgatg
    35

<210> 15
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> 5'-end primer

<400> 15
gcacgaacgt cggaaacgac atctagacta g
    31

<210> 16
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> 5'-end primer antisense

<400> 16
catgccatgg tcttcctctc gctgtcgctg atgtc
    35

<210> 17
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> 5'-end primer sense

<400> 17
ctagtctaga catcaccgaa cgatgagaga gg
    32

<210> 18
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> 5'-end primer sense

<400> 18

gacatcagcg acagcgagag gaagaccagc tctagactag
    40

<210>   19
<211>   26
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   double-stranded oligonucleotide

<400>   19
cgcgtggcga gattttcagg agtcac
    26

<210>   20
<211>   26
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   double-stranded oligonucleotide

<400>   20
tcgagtgact cctgaaaatc tcgcca
    26

<210>   21
<211>   40
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   E-tag probe

<400>   21
acgcggttcc agcggatccg gatacggctc cggcgcacct
    40

<210>   22
<211>   8
<212>   RNA
<213>   Artificial Sequence

```
<220>
<223>  primer

<400>  22
crccaugg
     8
```

```
<210>  23
<211>  9
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  23
cucaaaugg
     9
```

```
<210>  24
<211>  9
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  24
gggugauga
     9
```

```
<210>  25
<211>  9
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  25
uuuagauga
     9
```

```
<210>  26
```

<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 26
uucgauga
    9

<210> 27
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 27
acugcaugg
    9

<210> 28
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 28
acucuaugg
    9

<210> 29
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 29
agaagauga

9

<210>   30
<211>   9
<212>   RNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   30
agcaaaugu
        9

<210>   31
<211>   9
<212>   RNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   31
aaaagauga
        9

<210>   32
<211>   9
<212>   RNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   32
aaagcaugc
        9

<210>   33
<211>   9
<212>   RNA
<213>   Artificial Sequence

<220>

<223> primer

<400> 33
cgggaaugg 9

<210> 34
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 34
gggaaaugg 9

<210> 35
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 35
ggggaauga 9

<210> 36
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> primer

<400> 36
gaaugaugg 9

<210> 37
<211> 9

```
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  37
gcaagaugc                                                            9



<210>  38
<211>  9
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  38
gaacgauga                                                            9



<210>  39
<211>  9
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  39
agaaaaugg                                                            9



<210>  40
<211>  9
<212>  RNA
<213>  Artificial Sequence

<220>
<223>  primer

<400>  40
aagaaauga                                                            9
```

```
<210>   41
<211>   36
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   41
tgaccggaat tcatgggtga tgaaaaggac tcttgg
    36


<210>   42
<211>   39
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   42
tgaccggaat tctgaccttc agaacttgag gctgaagcc
    39


<210>   43
<211>   30
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   43
agcctcaagt tcgcggccgc agagtggacc
    30


<210>   44
<211>   21
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer
```

<400> 44
gaggaagaag cgagtgaaga t
    21

<210> 45
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 45
gacagcgaga aagaccagct cg
    22

<210> 46
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 46
ttcttcatct tcacccatgg cttcctcact tac
    33

<210> 47
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 47
ctagtctaga gcacgaacgt cggaaacgac a
    31

<210> 48
<211> 40
<212> DNA

<213>   Artificial Sequence

<220>
<223>   primer

<400>   48
ctagtctaga gacatcagcg acagcgagag gaagaccagc
    40

<210>   49
<211>   35
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   49
ccatcgatag aacctgagcc tgattctgct gacga
    35

<210>   50
<211>   34
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   50
ccatcgatac cggcagcaac tctgaggagg catc
    34

<210>   51
<211>   33
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   primer

<400>   51
ttcttcatct tcacccatgg cttcctcact tac
    33